

Heutagogy in the Era of Industry 4.0: Teachers as Student Coaches and Learning Leaders

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Abstract – Education systems are facing many challenges today. Information technologies and the nature of work have been changing rapidly and redefining the concepts of training and workforce. Professions will evolve and some of the jobs we know today will disappear in the near future. For that kind of a blurry future, in schools, teachers are expected to guide students to develop a vision of their goals in life, build skills such as time management, self-advocacy, and academic & professional development skills to achieve their goals. However, the approaches and methods being applied today in classes are not really helping through the route to the future. For that, new approaches and methods have been of great interest to researchers, educators and decision-makers. As a response to the needs of the era, heutagogy (self-determined learning) and coaching have been two of the concepts with increasing interest upon. In this study, based on an extensive review of the current literature and research, heutagogy and student coaching concepts are examined in an inter-related fashion as a suggested means through the route to respond to the needs of the era of industry 4.0.

Keywords – Heutagogy, student coaching, learning leader, industry 4.0, self-determined

I. INTRODUCTION

In the era of industry 4.0, terms like artificial intelligence, virtual reality, robotics and crowdsourcing are at the center of lives. The industrial revolution changes and redefines the concepts, processes and their outcomes. At the center of lives, education is redefined in order to respond to the needs of smart societies of the era. Students are not just receivers of knowledge any more. They need to become connectors, creators and constructivists in the classes of 4.0 era, which changes the roles of teachers as well. Teachers are supposed to be more than knowledge sharers. Even prior to the era of 4.0, teachers were described as facilitators of collaborative learning in class. And now, they are expected to carry multiple roles, to start with a lifelong learner, a learning leader, a resource guide, a connection-making guide, capable of managing diversity of network and accessible & open to communication [1].

On the other hand, the education systems and schools today are mostly based on a model which still carries the traits of classical organization theory preparing and maintaining people to fit an economic model of society just like once when the model was first developed to meet the needs of the industrial revolution [2, 3]. Teacher is at the centre of learning following a structured program and students are trying to fit in pre-set goals.

The World Economic Forum reports (2018) on the future world make it clear that the changing nature of work is rapidly making the education systems and labour policy outdated. In the near future, professions will evolve and some of the jobs we know today will disappear. This will require manpower to adapt & learn quickly throughout the changing circumstances as creative and competent employees, which also emphasizes lifelong learning in continuously changing and complex

workplace environments. Thus, a learner, also a lifelong learner, needs to take the responsibility of his/her own learning experiences, to get actively involved in learning processes and that requires the teacher to become more than a knowledge sharer at the centre [4].

II. HEUTAGOGY

The concept of heutagogy, also self-determined learning, applies a holistic approach which focuses on developing learner capabilities by accepting the learners as active agents in active and proactive learning processes. In classes with heutagogical approach, learner autonomy increases and teacher control decreases, which means students are confident to choose what is important/necessary for them to learn more and they can discover their learning strategies through experiences [5, 6, 7].

Since the approach of heutagogy asserts that in heutagogically designed learning environments, learners acquire knowledge, skills and capabilities to apply them effectively in changing circumstances [8], the applications of heutagogy could be of help through the route to the future.

Heutogogic design of the learning process is consisted of three stages: Firstly, the learner as an individual and teacher work together to identify learning needs and outcomes to create and agree upon a learning contract. Then, learning activities take place. On that stage, teachers create challenging tasks providing autonomy and support to the learner. Lastly, learning is assessed based on the agreed-upon outcomes to see whether they have been achieved [2].

III. COACHING

Coaching is helping people learn instead of teaching them. It is a partnership based on mutual willingness and understanding. The coach helps the coachee to achieve their personal best through a series of conversations [9].

In coaching, using “questions that model reflective thinking and prompt students’ ability to plan and carry out their goals” is essential [10], which is also essential in the learning processes of heutagogic design.

In both heutagogic learning processes and in coaching sessions, a student is encouraged to focus on their own capacity to take action on goals in a balanced and fulfilling way. Thus, the coaching skills of a teacher are of great use in heutagogically designed learning environments where a student takes control of their own learning to achieve their best, yet has a teacher as a resource guide, a connection-making guide, and open to communication nearby [1, 10].

Unlike traditional didactic models, coaching utilizes an inquiry approach [11]. Similar to the heutagogic design, students are helped and motivated on establishing a concrete and step-by-step plan towards reaching their goals while being assisted with accessing resources to overcome obstacles. That is the intended lifelong learner type of the industry 4.0 workplaces - an employee as a lifelong learner who is capable of developing their own professional self-regulation skills to manage challenges within their executive function difficulties by emphasizing self-determination [1, 10, 11, 12].

The understanding of self-determination cannot be something to achieve after school, it needs to be apprehended through school years starting from the early years. For that, coaching skills of teachers as learning leaders need to be improved and used effectively in classes. By improving coaching skills of teachers, self-awareness, self-management skills and subjective well-being of students could be improved, and self-determined lifelong learners could be promoted [13].

IV. CONCLUSION

With an interest on the changing nature of work and its effect on education systems, in this study, heutagogy and student coaching concepts are examined in an inter-related fashion as a suggested means to respond to the needs of the era of industry 4.0. Today, with its fast and elaborate technology, the era of industry 4.0 evolves students’ and teachers’ roles. Students become connectors, creators and constructivists in the classes of 4.0 era while teachers become learning leaders, resource guides, connection-making guides and facilitators managing networks. This leads to classes with a learner-centered approach to teaching and learning with teachers supporting self-determined and autonomous learners. It leads to teachers who master their intra-personal and inter-personal skills in their interactions while they support students to set & pursue their own goals and overcome challenges – teachers who can coach students through their route.

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